

1 In the Claims

2 ~~Claims 2, 6, 7, 9, 11, 14, 16-19, 32-36, 38, 39, 41-46 and 48 have been~~
3 amended.

4 ~~Claims 1, 8, 31, 40 and 47 have been canceled.~~

5 ~~Claims 2-7, 9-30, 32-39, 41-46 and 48 remain in the application and are~~
6 listed below:

7
8 1. (Canceled).

9
10 ~~/2. (Currently Amended) The method of claim 1, wherein said~~
11 ~~determining comprises:~~ A method of operating a portable computing device
12 comprising:

13 determining a location of the portable computing device by accessing one
14 or more hierarchical tree structures each of which comprising multiple nodes that
15 represent physical or logical locations; and traversing at least one node on the one
16 or more hierarchical tree structures to ascertain a device location;

17 acquiring digital data associated with the determined location and that can
18 permit the portable computing device to interact with a location environment; and

19 interacting with the location environment based, at least in part, on the
20 acquired digital data.

21
22 3. (Original) The method of claim 2, wherein said accessing comprises
23 locally accessing said one or more hierarchical tree structures.
24
25

1 4. (Original) The method of claim 2, wherein said accessing comprises
2 accessing said one or more hierarchical tree structures from a source that is remote
3 from the device.

4
5 5. (Original) The method of claim 2, wherein said accessing comprises
6 wirelessly accessing said one or more hierarchical tree structures.

7
8 6. (Currently Amended) The method of claim + 2, wherein said
9 determining comprises receiving location information from multiple different
10 location providers and, based on the location information, ~~determining the location~~
11 performing said acts of accessing and traversing.

12
13 7. (Currently Amended) The method of claim + 2, wherein said
14 determining comprises wirelessly receiving location information from multiple
15 different location providers and, based on the location information, ~~determining~~
16 the location performing said acts of accessing and traversing.

17
18 8. (Canceled).

19
20 9. (Currently Amended) The method of claim + 2, wherein the digital
21 data comprises data that is used to render a Web page.

22
23 10. (Original) The method of claim 9, wherein said interacting
24 comprises interacting with the Web page.
25

11. (Currently Amended) The method of claim + 2, wherein the digital data comprises code download pointers that reference software code that can be wirelessly downloaded on the device.

12. (Original) The method of claim 11, wherein said interacting comprises:

using the code download pointers to access and load the software code on the device; and

executing the software code on the device.

A³
13. (Original) The method of claim 11, wherein said interacting comprises:

using the code download pointers to access and load the software code on the device; and

executing the software code in a runtime environment on the device.

14. (Currently Amended) The method of claim + 2, wherein the digital data comprises one or more applets that can be executed on the device.

15. (Original) The method of claim 14, wherein said interacting comprises locally executing the one or more applets.

16. (Currently Amended) The method of claim + 2, wherein said acquiring comprises wirelessly acquiring the digital data via the Internet.

1 17. (Currently Amended) A portable computing device programmed
2 with instructions that implement the method of claim 1 2.

3
4 18. (Currently Amended) A handheld portable computing device
5 programmed with instructions that implement the method of claim 1 2.

6
7 19. (Currently Amended) One or more computer-readable media having
8 computer-readable instructions thereon which, when executed by a computer,
9 implement the method of claim 1 2.

10
11 /20. (Original) A method of operating a portable computing device
12 comprising:

13 determining a location of the portable computing device by accessing one
14 or more hierarchical tree structures comprising multiple nodes that represent
15 physical or logical locations; and traversing at least one node on the one or more
16 hierarchical tree structures to ascertain a device location;

17 acquiring one or more applets associated with the determined location; and
18 locally executing the one or more applets sufficient to interact with a
19 location environment.

20
21 21. (Original) The method of claim 20 further comprising maintaining
22 an applet cache in which applets can be cached for use on the device.

1 22. (Original) The method of claim 21 further comprising removing one
2 or more applets when a device location changes such the one or more applets are
3 no longer needed.

4
5 23. (Original) The method of claim 20, wherein said acquiring
6 comprises generating a query that is configured to identify one or more applets
7 that are associated with the location.

8
9 24. (Original) The method of claim 20, wherein said acquiring
10 comprises querying a server to ascertain one or more applets that are associated
11 with the location and that provide a location-specific service.

12
13 25. (Original) The method of claim 24 further comprising receiving a
14 response from the server that contains digital data associated with services that are
15 provided for that location.

16
17 26. (Original) The method of claim 25, wherein the digital data
18 comprises one or more URLs that are associated with applets that can be executed
19 for that location.

20
21 27. (Original) The method of claim 25, wherein the digital data
22 comprises one or more applets that can be executed for that location.

23
24 28. (Original) A portable computing device programmed with
25 instructions that implement the method of claim 20.

A3
1
2 29. (Original) A handheld computing device programmed with
3 instructions that implement the method of claim 20.
4

5 30. (Original) One or more computer-readable media having computer-
6 readable instructions thereon which, when executed by a computer, implement the
7 method of claim 20.
8

9 31. (Canceled).
10

11 /32. (Currently Amended) ~~The computer-readable media of claim 31,~~
12 ~~wherein the instructions cause the portable computing device to determine its~~
13 ~~location~~ One or more computer-readable media having computer-readable
14 instructions thereon which, when executed by a portable computer device, cause
15 the computing device to:

16 determine its location by accessing one or more hierarchical tree structures
17 each of which comprising multiple nodes that represent physical or logical
18 locations, and traversing at least one node on the one or more hierarchical tree
19 structures to ascertain a device location;

20 generate a service query that is configured to identify services that are
21 associated with the location;

22 wirelessly send the query to one or more servers;

23 receive a response from the one or more servers that contains digital data
24 associated with applets that can be executed by the device and that provide a
25 location-specific service; and

1 locally execute the one or more applets to interact with a location
2 environment.

3
4 33. (Currently Amended) The computer-readable media of claim ~~31~~ 32,
5 wherein the instructions cause the portable computing device to determine its
6 location by:

7 receiving location information from multiple different location providers,
8 the location information pertaining to a current location; and

9 accessing said one or more hierarchical tree structures each of which
10 comprising multiple nodes that represent physical or logical locations; and

11 traversing at least one node on the one or more hierarchical tree structures,
12 based at least in part on the location information, to ascertain a device location.

13
14 34. (Currently Amended) The computer-readable media of claim ~~31~~ 32,
15 wherein the response comprises one or more URLs associated with applets that
16 can be executed by the device, and further comprising using the URLs to
17 wirelessly access one or more associated applets.

18
19 35. (Currently Amended) The computer-readable media of claim ~~31~~ 32,
20 wherein the instructions cause the portable computing device to:

21 receive one or more digitally signed applets; and

22 authenticate the one or more applets prior to executing them on the device.
23
24
25

1 36. (Currently Amended) The computer-readable media of claim ~~31~~ 32,
2 wherein the instructions cause the portable computing device to maintain an applet
3 cache in which applets can be cached for future use on the device.

4
5 37. (Original) The computer-readable media of claim 36, wherein the
6 instructions cause the portable computing device to remove one or more applets
7 from the applet cache when a device location changes such that the one or more
8 applets are no longer needed.

9
10 38. (Currently Amended) A portable computing device embodying the
11 computer-readable media of claim ~~31~~ 32.

12
13 39. (Currently Amended) A handheld computing device embodying the
14 computer-readable media of claim ~~31~~ 32.

15
16 40. (Canceled).

17
18 ~~41. (Currently Amended) The computer architecture of claim 40~~
19 ~~wherein the location service module is configured to ascertain a location A~~
20 ~~computer architecture comprising:~~

21 a location service module configured to wirelessly receive location
22 information and ascertain a location associated with the location information by
23 accessing one or more hierarchical tree structures each of which comprising
24 multiple nodes that represent physical or logical locations and traversing at least
25

1 one node on the one or more hierarchical tree structures to ascertain a device
2 location; and

3 an applet manager operably associated with the location service module and
4 configured to receive and manage applets that can be wirelessly received and that
5 pertain to a location that is ascertained by the location service module, the applets
6 being configured to enable a user of a computer device to interact with a location
7 environment.

8
9 42. (Currently Amended) The computer architecture of claim 40 41
10 further comprising an applet runtime environment in which one or more wirelessly
11 received applets can execute.

12
13 43. (Currently Amended) The computer architecture of claim 40 41
14 further comprising an applet cache in which applets can be cached for use in
15 connection with an ascertained location.

16
17 44. (Currently Amended) The computer architecture of claim 40 41
18 further comprising a network component configured to establish wireless
19 communication with a network so that applets can be wirelessly received.

20
21 45. (Currently Amended) A portable computing device embodying the
22 computer architecture of claim 40 41.

23
24 46. (Currently Amended) A handheld computing device embodying the
25 computer architecture of claim 40 41.

1
2 47. (Canceled).
3

4 /48. (Currently Amended) ~~The computing device of claim 47, wherein~~
5 ~~the location service module is configured to ascertain a location~~ A handheld
6 computing device comprising:

7 a location service module configured to receive location information and
8 ascertain a location associated with the location information by accessing one or
9 more hierarchical tree structures each of which comprising multiple nodes that
10 represent physical or logical locations, and traversing at least one node on the one
11 or more hierarchical tree structures to ascertain a device location;

12 an applet manager operably associated with the location service module and
13 configured to receive and manage applets that can be wirelessly received and that
14 pertain to a location that is ascertained by the location service module;

15 an applet runtime environment in which applets that are received can
16 execute to enable a user of the device to interact with a location environment;

17 an applet cache in which applets can be cached for use in connection with
18 an ascertained location; and

19 a network component configured to establish wireless communication with
20 a network so that applets can be wirelessly received.
21